

COMMUNICATIONS AND INFORMATION MANAGEMENT

Goal: *To promote informed public policy by applying communications and information management technology to the environmental protection, resource management, transportation and sustainable development needs of the Great Lakes-St. Lawrence system.*

Selected highlights

Received up to 2.8 million hits per month on the redesigned Great Lakes Information Network (GLIN), which features new sections on Great Lakes daily news, teaching tools, and maps and geographic information systems (GIS) • Advanced coastal wetlands protection efforts by forming a consortium of scientists and policymakers to develop a long-term monitoring plan • Released the AirMapper, a tool that maps toxic air emissions across the Great Lakes • Added basinwide reference layers for political boundaries and watersheds to GLIN's Maps and GIS section • Promoted information/education by researching, designing and marketing TEACH Great Lakes, the new education component of GLIN • Redesigned the Commission's newsletter, the *Advisor* • Awarded the Carol A. Ratza Memorial Scholarship to Ivona Lerman, a master's student in environmental journalism at Michigan State University

www.great-lakes.net or www.glin.net

GLIN: Targeting new audiences with online services

Great Lakes Information Network unveils new design, daily news services

After an intense, six-month redesign process, the GLIN project team unveiled a new look and enhanced navigation for the site on May 15, 2000. The site now features a condensed Daily News page and an advanced search engine that allows visitors to narrow their searches by agency, keyword and topic. Content enhancements include new sections devoted to educational resources, and maps and GIS. The Commission



"Getting a summary of news coverage each morning is incredibly valuable and allows us to be more effective. The GLIN Daily News service is a great idea, executed superbly."

— *David Rankin, vice president and director of programs, Great Lakes Protection Fund*

is currently marketing a suite of daily news services, including a regional press room, searchable archive of Great Lakes headlines, and free Daily News box that allows partner agencies to provide a "window" to the latest regional news on their own web sites. Since the redesign, monthly hits on GLIN have seen a four-fold increase, peaking at 2.8 million for the month of November.

Educating the next generation

With the launch of The Education And Curriculum Homesite (TEACH) on GLIN, students and teachers have a new source for Great Lakes educational materials. Focusing on a different Great Lakes topic each month, TEACH is geared for elementary through high school students. Recent modules highlight Great Lakes Native Americans, fish and fishing, and shoreline geology, with links to a glossary that explains scientific terms and acronyms. Supported by the U.S. Environmental Protection Agency (U.S. EPA), TEACH also provides answers to questions that kids submit about the lakes. Future enhancements include a Great Lakes image gallery and timeline, and features on environmental stewardship projects and field trip opportunities.

Improving the health of coastal wetlands

The ecological health of Great Lakes coastal wetlands will be improved, thanks to the Commission and a binational consortium of Great Lakes wetland scientists and resource managers. Representatives from U.S. and Canadian federal governments, states, provinces, nonprofit organizations and academia are developing and refining indicators of ecological health for Great Lakes coastal wetlands recommended at the State of the Lakes Ecosystem Conference in Hamilton, Ontario, in October 2000. The consortium also is designing a long-term monitoring program for Great Lakes coastal wetlands and a binational database that will be accessible to the public.

Promoting the health of our beaches

In partnership with the U.S. EPA, the Commission is addressing rising concern over contaminated beaches and associated public health problems. This information/education initiative features a web site and interactive map. Visitors to the site can retrieve information about individual beaches, the monitoring agency, and standards used to determine advisories and closures.

Placing Great Lakes GIS data online

Commission initiatives in 2000 provided researchers, managers and policymakers with quick access to accurate Great Lakes spatial data, such as the Great Lakes Hydromet Station Directory and Lake Michigan Online Atlas. The Hydromet Station Directory maps characteristics of hydrological and meteorological stations from a database developed by the National Oceanic and Atmospheric Administration's Great Lakes Environmental

Research Laboratory. The maps and query tools, which will be served through the Online Mapping page of GLIN's Maps and GIS section (www.glin.net/gis), identify stations based on location and types of data collected, and direct users to the appropriate agency for individual data records. This project is a prototype for map serving software and techniques involving large data sets. The Lake Michigan Online Atlas, a data consolidation and distribution effort covering the Lake Michigan basin, involves placing planning and ecosystem-oriented map layers on an Internet site equipped with basic GIS mapping tools. Data layers developed for this project may be expanded to cover other lake basins within the Great Lakes region.

www.glc.org/air/airmapper.html

Mapping toxic air emissions

The Commission has developed new tools to improve air quality through informed management. Its Great Lakes Regional Air Toxic Emissions Inventory project has unveiled AirMapper, an online GIS application used to view emissions inventory information. Visitors can create customized maps of the Great Lakes region by choosing a pollutant to display, or they can identify individual counties and retrieve selected pollutant totals. Toxic emissions inventories for 1997, 1998 and 1999 are nearing completion and feature data in the categories of point, area, on-road and non-road sources.

Partnering with Baltic states

Two principal areas of cooperation in the Great Lakes/Baltic Sea Partnership are multilateral watershed management, and an expert fellowship and exchange program. To date, the Commission has placed 10 Baltic fellows with U.S. and Canadian host organizations, resulting in mutual benefits in matters of environmental diplomacy and in establishing sustainable networks for scientific and policy exchange. The program has successfully established a risk assessment network between the United States, Canada and the Baltic states, and is coordinating efforts to develop environmental indicators for the Baltic and Great Lakes regions.

What's ahead in 2001

Keeping the Commission on the cutting edge of electronic communications technology • Developing a geospatial reference gallery for Great Lakes habitat and health data • Developing TEACH Great Lakes to include an interactive Great Lakes timeline and stewardship initiatives • Expanding the scope of the GLIN Daily News suite of services • Providing interactive atlas maps of the Great Lakes through GLIN • Enhancing air toxic data access through an interactive database

